(Model.)

J. LOCH.

LOCKING LATCH.

No. 266,170 Patented Oct. 17, 1882.

Fig. 1.

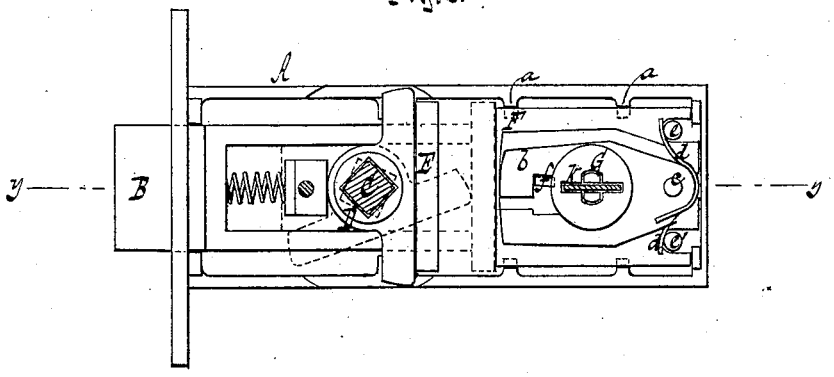


Fig. 2.

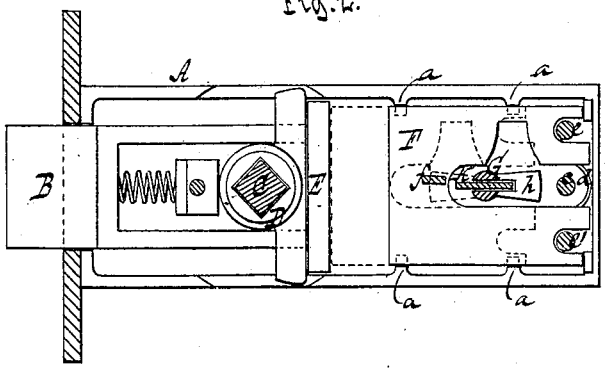


Fig. 3.

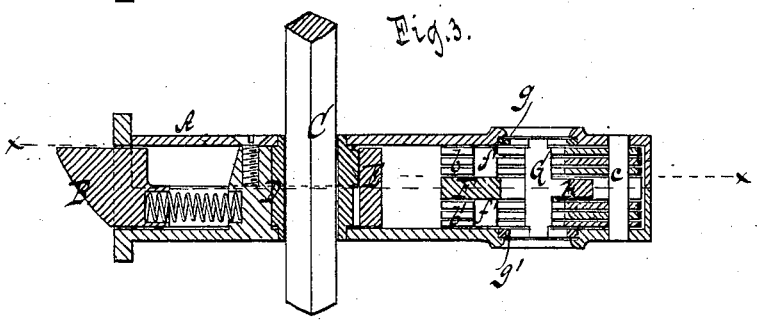
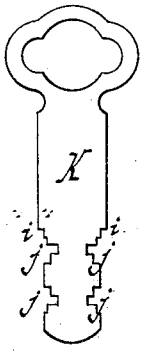


Fig. 4.



Witnesses
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William Miller

Inventor
Joseph Loch
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UNITED STATES PATENT OFFICE.

JOSEPH LOCH, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND GEORGE BAYER, OF SAME PLACE.

LOCKING-LATCH.

SPECIFICATION forming part of Letters Patent No. 266,170, dated October 17, 1882.

Application filed February 10, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOSEPH LOCH, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Locks, of which the following is a specification.

This invention consists in the combination of a latch, a bolt for locking said latch either from the inside or from the outside of the door, two sets of tumblers, one on each side of the bolt, and a key which can be inserted into the lock from the inside and from the outside, and which serves to adjust the two sets of tumblers and to actuate a bit for throwing the bolt.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a face view of my lock when the top of the case is taken off. Fig. 2 is a horizontal section in the plane *x x*, Fig. 3. Fig. 3 is a longitudinal vertical section in the plane *y y*, Fig. 1. Fig. 4 is a face view of the key.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the case of my lock, which is by preference made with an oval cross-section and in two halves, the upper half being secured in position by one or more screws. The front portion of the case is occupied by the latch B, which is operated by the spindle C and nut D, the wings of which act on the tail E of the latch. The rear portion of the case A is occupied by the bolt F and the devices for locking and unlocking the same. Said bolt rests upon shoulders *a*, formed on the side of the case, as shown in dotted lines in Figs. 1 and 2, and it occupies a central position, leaving room above for a set of tumblers, *b*, and below for another set of tumblers, *b'*. All these tumblers swing on a common pin, *c*, and each of them is supplied with a spring, *d*. The free ends of these springs bear some against a pin, *e*, and others against a pin, *e'*, Fig. 1. From the bolt project two stumps, *f f'*, one from each side, which prevent the bolt from being moved until the tumblers have been adjusted in the proper position, which is effected by the key K. This key can be inserted from either side into the case, and it is so formed that however it may be introduced it will serve to adjust all the tumblers in the proper position. The key passes through slotted disks *g g'*, which turn loosely in cavities formed for their reception in the case, and which are sustained and connected by a hub, G, from which projects the bit *h*, and which is slotted throughout its entire length, so as to form a guide for the key, said key being provided with shoulders *i i*, Fig. 4, which prevent it from being pushed in any farther than required. When the key has been pushed in through one of the slotted disks *g* or *g'* until it is arrested by its shoulders *i i*, said disks, together with the slotted hub G, form a perfectly secure guide for the key, and when said key is turned it acts first upon its tumblers, so as to adjust them in the proper position, and then the bit *h* of the hub G acts on the bolt F and throws the same forward to the position shown in dotted lines in Fig. 2, or back to the position shown in full lines in the various figures of the drawings. When the bolt occupies this last-named position the latch can be thrown back or opened by turning the spindle C; but if the bolt F is thrown forward the latch is locked. The key K is flat and provided on its opposite edges with recesses *j j*, the recesses in one edge being precisely the same as those in the opposite edge, so that the key can be inserted into the lock without observing which edge is up.

By these means a lock is obtained which combines an ordinary lock and a latch, and which, on account of the form of its case and of its key-holes, can be used on any door, right or left, without requiring any change, since the case can be turned and inserted equally well into a door which opens to the right as into one which opens to the left, and the key can be inserted equally well whatever the position of the lock may be. Furthermore, by the two sets of tumblers being situated on the opposite sides of the bolt the operation of picking the lock is rendered extremely difficult, if not impossible.

I am aware that rotary hubs provided with a key slot or opening have been made before, and do not claim such as my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a latch and lock, the combination, with the casing and the sliding latch arranged in the front end of the casing and operated by the knob-spindle, of a sliding lock-bolt, F, arranged in rear of the latch, but in line therewith, two sets of tumblers, *b b'*, arranged respectively on opposite sides of the lock-bolt, a rotary hub, and a detachable key recessed in its opposite edges and adapted to rotate the said hub from either side of the door for sliding the locking-bolt against the rear end of the sliding latch, substantially as and for the purpose described.

2. The combination of the bolt F, two sets of tumblers, *b b'*, one on each side of the bolt, the rotary slotted hub G, the bit *h*, projecting from said hub, and the slotted disks *g g'*, placed in cavities of the lock-case and secured to the ends of the slotted hub, all constructed to operate substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JOSEPH LOCH. [L. S.]

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.